

ABSTRACT OF THE DISCLOSURE

In a method of manufacturing a bending-resistant, torsionally yielding tubular profiled member as a transverse support of a twist beam rear axle of a passenger car, a tube blank of tempering steel is cold formed to a tubular profiled member with a torsionally yielding central longitudinal section of a U-shaped cross-section and with opposed torsion-proof end sections. At least partial sections of the tubular profiled member are annealed at a temperature level between 850° C and 960° C. The tubular profiled member is then hardened in water at a temperature above the AC3 point and subsequently tempered at a temperature between 200° C and 550° C for a duration of more than five minutes. As an alternative, a tube blank of case hardening steel is used, and at least partial sections of the tubular profiled member formed from this tube blank are case-hardened during a heat treatment with carburization of the surface of the tubular profiled member and subsequent quenching. The tubular profiled member in both variants is then subjected to at least one outer surface hardening process and finally subjected to further configuration processing steps for completing a twist beam rear axle.

189